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REMARKS

Reconsideration of the rejections set forth in the Office Action dated September 20, 2006 is respectfully requested. By this amendment claims 6-7 and 25-26 have been canceled without prejudice or disclaimer, and claims and 1, 13, 15, 23, and 27 have been amended. Currently, claims 1-5, 8-24, and 27 are pending in this application.

Rejection under 35 USC 102 over Garahi

Claims 1-26 were rejected under 35 USC 102 as anticipated by Garahi, et al. (U.S. Patent Publication No. 2003/0091010). This rejection is respectfully traversed in view of the amendments to the claims and the following arguments.

This application relates to a mobile inter-mesh communication point that is configured to operate on two wireless mesh networks. Applicants proposed in this application to use a first level mesh network for a backhaul network and to use a second level mesh network for the access network. Applicants also proposed to allow the inter-mesh communication points to be mobile, so that the ad-hoc backhaul mesh network could follow the traffic as people moved from place to place. After reviewing Garahi, it appears to applicants that Garahi did not teach or suggest the use of the IAPs as inter-mesh communication points. Rather, the IAPs in Garahi participated along with the user terminals in a single level mesh network.

Garahi teaches the use of mobile Intelligent Access Points (IAP) that communicate with handheld user terminals that form an ad-hoc or mesh network. (Garahi at Paragraph 30). In the analysis of Garahi, the ad-hoc or mesh network that is formed to include the user terminals 118 will be referred to as a first level mesh network. The wired IAPs function as access points to the network 100 for the user terminals forming the ad-hoc network. (Garahi at Paragraph 30). Thus, the IAPs function as access points to the first level mesh network.

Figs. 5 and 6 (described in Paragraph 39 of Garahi) show various one level ad-hoc networks. In Fig. 5, the IAP 132 is disposed in vehicle 146 (see Paragraph 37), and "operates as a router to enable intercommunication between mobile terminals 118 which can be hand-held or present in other vehicles 154, 156." (Garahi at Par. 39). Thus, in Fig. 5 the IAP is functioning as a router in the first level mesh network to allow user terminals such as handheld and car-based terminals in the first level mesh network to communicate with each other. Clearly the IAP in Fig. 5 is operating only in a first level mesh network.

Fig. 6 is similar to Fig. 5, except that the mobile IAPs 132 can use each other in conjunction with user terminals 118 to allow communications in the ad-hoc network to extend to a fixed AP 108. The last sentence of Paragraph 39 states that the mobile IAPs 132 can establish communications links with each other "in the ad-hoc network" which applicants assert refers to the first level network that is being used by the user terminals 118. Thus, when a mesh network is being used in Garahi, only a single mesh level is implemented by the mobile IAPs and the user terminals.

Garahi teaches that the mobile IAPs should communicate with a fixed IAP via a wireless backhaul "such as a microwave backhaul." (Garahi at Paragraph 38). Garahi further states that the mobile IAPs 132 can utilize a self forming self healing radio access technology "such as that described in U.S. Patent Application Serial No. 09/897,790 and U.S. Patent No. 5,943,322." Applicants have reviewed these cited references, and it appears that they each teach a cellular ad-hoc network. Thus, the incorporation by reference indicates that Garahi contemplates using a cellular ad-hoc network for the first level mesh network, and point-to-point microwave as a backhaul. Garahi doesn't appear to teach however, the use of two mesh networks, with the mobile IAP forming a point extending between the two mesh networks.

Applicants have amended independent claim 1 to recite that the mobile inter-mesh communication point has a first wireless mesh network port configured to operate utilizing at least one IEEE 802.11x standard to participate on a first level wireless mesh network implemented using the at least one 802.11x standard; and a second wireless mesh network port configured to operate utilizing at least one IEEE 802.16x standard to participate on a second level wireless mesh network implemented using the at least one 802.16x standard. Similar amendments have been made to independent claims 15 and 27.

The amended portions of claim 1 were formerly set forth in dependent claim 7. In connection with this, the Examiner indicated that paragraph 34 of Garahi taught the use of 802.16 in connection with the mobile IAP. Applicants have reviewed this portion of Garahi and do not see any reference to 802.16. For convenience, paragraph 34 of Garahi is set forth below:

> [0034] In addition to having fixed IAPs 104, 106 and 108, the network can employ mobile IAPs 132. Each mobile IAP 132 is similar to a fixed IAP 104, 106 or 106 in that it operates to provide access for subscriber devices, such as mobile user terminals 118, to wired services provided by the network 100. As shown in FIG. 2, IAP 132 includes at least one transceiver 134 and at least one processor 136. The transceiver 134 can transmit and receive data packets over any

> frequency band, for example, over the 2 ISM band. However, the frequency and modulation scheme used by the transceiver 134 do not impact the implementation of the mobile IAP 132.

As set forth above, this paragraph does not explicitly mention 802.16. Moreover, the mentioned frequency band "2 ISM band" is a frequency band that encompasses the 2.4-2.4835GHz spectrum, whereas the 802.16x protocols (which are commonly known as WiMax) operate in the 10-66GHz spectrum. Although Garahi states that the frequency and modulation scheme are not important, Garahi is focused in this section on the use of a single "frequency band." Note, in this regard, that Garahi consistently uses of the term "frequency band" in the singular tense rather than in the plural tense, which implies that only one frequency band is being used, not two frequency bands as claimed. For all these reasons, applicants respectfully submit that this portion of Garahi does not support the Examiner's position that Garahi teaches the use of two frequency bands or the use of one of the IEEE 802.16x protocols as a backhaul frequency. Accordingly, applicants respectfully submit that the claims as amended are patentable over Garahi.

Claim 13

A second aspect of the invention relates to power management. Specifically, as described in the specification as originally filed on Page 22, lines 5-22, the mobile inter-mesh communication point may be connected to the vehicle's electrical system and draw power from the electrical system while the vehicle is running and may continue to draw power from the electrical system (car battery) once the vehicle has been turned off. To prevent the mobile inter-mesh access point from draining the battery of the vehicle, the access point monitors the battery level (voltage, current, and/or power) and turns the access point off to prevent the battery from being drained excessively.

Amended claim 13 recites that the mobile inter-mesh communication point has a battery discharge controller configured to monitor a battery level of the vehicle and turn off the inter-mesh communication point when the battery level of the vehicle drops below a threshold value. Garahi does not teach or suggest that the mobile IAP 132 should be able to be used when the car is turned off. Additionally, Garahi does not teach or suggest that the IAP should include a battery discharge controller as claimed. Thus, claim 13 is patentable over Garahi.

Conclusion

In view of foregoing remarks, it is respectfully submitted that the application is now in condition for allowance and an action to this effect is respectfully requested. If there are any questions or concerns regarding the amendments or these remarks, the Examiner is requested to telephone the undersigned at the telephone number listed below.

If any fees are due in connection with this filing, the Commissioner is hereby authorized to charge payment of the fees associated with this communication or credit any overpayment to Deposit Account No. 502246 (Ref: NN-16127).

Respectfully Submitted

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